

Product data sheet

Specifications



generator protection relay,
PowerLogic P3G30 3CT 2Io ringlug
4VT 24DI 21DO 24-48V DI24V
RS232 RJ45 ANSI

REL53156

Product availability: Non-Stock - Not normally stocked in distribution facility

Main

Range of Product	PowerLogic P3
Product or Component Type	Protection relay
Relay application	Feeder
product reference	P3G30-DGGGG-AA1CA-BAAAB
Mounting case size	30TE
Device mounting	Flush
Mounting Mode	Flush mounting
power supply	24...48 V AC/DC
measuring inputs	3 1/5 A CT phase current 1 5/1 A CT residual current 1 1/0.2 A CT residual current 4 100 V/110 V VT voltage
Number of sensors	0 temperature sensor(s) 0 arc sensor(s)
number of Digital Inputs (DI)	24
number of analogue inputs	0
number of Digital Outputs (DO)	21 DO 1 watchdog
number of analogue outputs	0
communication ports	Front USB port 1 Rear RS232 1 Rear RJ45 1
communication protocols	IEC 61850 ed. 1 IEC 61850 ed. 2 IEC 60870-5-101 IEC 60870-5-103 DNP3 DNP3 TCP Modbus RTU Modbus TCP EtherNet/IP Modbus TCP master SPAbus
Cybersecurity	Password protection Port hardening

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

protection functions	Underimpedance 21G 8
	Overfluxing (V/Hz) 24
	Synchro-check 25
	Undervoltage 27
	Positive sequence undervoltage 27P
	Synchro-check 25 8
	Directional active underpower 32
	Field loss (underimpedance) 40
	Under reactance 21/40
	Negative sequence overcurrent 46
	Thermal overload protection 49
	Earth fault overcurrent 50N/51N
	Phase overcurrent 50/51
	Breaker failure 50BF
	Switch ON to fault (SOTF) 27P
	Capacitor bank unbalance 51C
	Voltage-restrained overcurrent 51V
	Switch ON to fault (SOTF) 64S
	Overvoltage 59
	Earth fault overvoltage 59N
	Stator earth fault 64S
	Directional phase overcurrent 67
	Directional earth fault 67N
	Magnetising inrush detection 68F2
	H5 detection 68H5
	Pole slip 78PS
	Underfrequency 81/81N
	Rate of change of frequency 81R
	Lockout relay 86
	Programmable stages 99 8
	Programmable curve 99 8
	Cold load pick-up
	CT supervision 60
	VT supervision 60FL
	Programmable curve 86
Arc flash protection	No
measurement functions	Current 3-phase
	Current zero sequence
	Current positive sequence
	Current negative sequence
	Current ratio of negative and positive
	Voltage phase to earth
	Voltage phase to phase
	Voltage zero sequence
	Voltage positive sequence
	Voltage negative sequence
	Voltage ratio of negative and positive
	Short circuit fault reactance 2nd, 15th harmonics with THD
	Fault location current zero sequence
	Earth fault reactance
	Frequency positive sequence
	Active power ratio of negative and positive
	RMS active power 3-phase
	Reactive power positive sequence
	Active power phasor diagram view
	RMS reactive power zero sequence
	Apparent power negative sequence
	RMS apparent power
	Active energy
	Reactive energy
	Cos ϕ
	Tan ϕ
	Power angle
	Power factor
	Voltage phasor diagram view
	Current phasor diagram view
	Current 2nd, 15th harmonics with THD
	Apparent power positive sequence
	Voltage 2nd, 15th harmonics with THD
	Condition monitoring CB wear
	Voltage interruption
	RMS apparent power ratio of negative and positive
	Active energy positive sequence
	Reactive energy negative sequence
	Cos ϕ ratio of negative and positive
	Condition monitoring CB wear phasor diagram view
	Voltage interruption 2nd, 15th harmonics with THD

control functions	Switchgear control and monitoring Programmable switchgear interlocking Local control on single-line diagram Local control with I/O keys Local/remote control 2 function keys Mobile application with Easergy SmartApp Web-server Programmable logic
controllable switchgear devices	8 controlled + 8 displayed
number of setting groups	4
monitoring functions	Trip circuit supervision 74 Circuit breaker monitoring Relay self-monitoring
logs and records	Event recording Disturbance recording Tripping context
Switchgear diagnosis type	CT supervision TCS Trip circuit supervision TCS
Connections - terminals	Screw removable (digital input/output) Pin removable (voltage transformer) Ring lugs fixed (current transformer)

Complementary

Operating threshold	24 V AC/DC
Time synchronisation protocol	SNTP
Software name	ESetup Easergy Pro virtual simulation test Easergy SmartApp
Web server	Embedded HTTP server
Display type	LCD 128 x 128 pixels with single line diagram LCD 128 x 128 pixels with ANSI symbols
Number of key	2 customizable
Local signalling	2 LEDs 16 LEDs programmable
Height	6.9 in (176 mm)
Width	10.6 in (270 mm)
Depth	9.06 in (230 mm)
Net weight	9.3 lb(US) (4.2 kg) maximum

Environment

climatic withstand	Exposure to dry heat Bb EN/IEC 60068-2-2 Exposure to cold Ad EN/IEC 60068-2-1 Exposure to damp heat in service Db EN/IEC 60068-2-30 Exposure to damp heat in service Cab EN/IEC 60068-2-78
Mechanical robustness	Vibrations class II) IEC 60255-21-1 VibrationsFc IEC 60068-2-6 Shocks class II) IEC 60255-21-2 ShocksEa IEC 60068-2-27 Seismic tests method A class II) IEC 60255-21-3

Electromagnetic compatibility	Emission tests IEC/EN 60255-26 ed. 3 Emission tests CISPR 11 Emission tests CISPR 22 EMC immunity IEC/EN 60255-26 ed. 3 EMC immunity EN/IEC 61000-4-18 EMC immunity level 4 EN/IEC 61000-4-2 EMC immunity level 3 EN/IEC 61000-4-3 EMC immunity level 4 EN/IEC 61000-4-4 EMC immunity level 3 EN/IEC 61000-4-5 EMC immunity level 3 EN/IEC 61000-4-6 EMC immunity EN/IEC 61000-4-8 EMC immunity level 5 EN/IEC 61000-4-9 EMC immunity EN/IEC 61000-4-29 EMC immunity EN/IEC 61000-4-11 EMC immunity EN/IEC 61000-4-17 EMC immunity IEC 60255-22-1 EMC immunity IEC 60255-22-2 EMC immunity IEC 60255-22-3 EMC immunity IEC 60255-22-4 EMC immunity IEC 60255-22-5 EMC immunity IEC 60255-22-6 EMC immunity IEC 60255-27 EMC immunity class III IEC 60255-5 EMC immunity EN/IEC 60255-1
Ambient air temperature for operation	-40...149 °F (-40...65 °C)
Ambient air temperature for storage	-40...158 °F (-40...70 °C)
IP degree of protection	IP54 front IEC 60529
maximum operating altitude	6561.68 ft (2000 m)
Protective treatment	Conformal coating
Relative humidity	0...95 %, without condensation

Ordering and shipping details

Category	US1PL1S11405
Discount Schedule	PL1S
GTIN	3606487107040
Returnability	No
Country of origin	LV

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	15.760 in (40.030 cm)
Package 1 Width	11.820 in (30.023 cm)
Package 1 Length	11.820 in (30.023 cm)
Package weight(Lbs)	11.660 lb(US) (5.289 kg)

Contractual warranty

Warranty (in months)	24
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Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)



Environmental footprint

Total lifecycle Carbon footprint	1 239 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	167 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	5 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.2 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	1 056 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	11 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile

Use Better



Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
EU RoHS Directive	Compliant By Exemption
REACH Regulation	Reference contains Substances of Very High Concern above the threshold

Use Longer



Lifetime extension

Repair	No
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Use Again



Repack and remanufacture

Recyclability potential, in %	37
Circularity Profile	End of Life Information
Take-back	No
WEEE Label	 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.